PATENT
ATTORNEY DOCKET NO. 10498-00012

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
James W. Fett	)	Before the Examiner:
Karen A. Olson	)	
	)	
Serial No.: TBA	)	Art Unit:
	)	
Filed: Herewith	)	
	)	
For: ANTISENSE INHIBITION OF	)	
ANGIOGENIN EXPRESSION	)	

Assistant Commissioner for Patents
Box Patent Application
Washington, D.C. 20231

Attention: Official Draftsman

TRANSMITTAL OF FORMAL DRAWINGS

Please substitute the enclosed twenty-one (21) sheets of formal drawings for the corresponding drawings in the continuation application being filed herewith.

Please apply any other charges or credits to our Deposit Account No. 19-0733.

Respectfully submitted,

Dated: May 23, 2001

John R. Iwanicki, Reg. No. 34,628
BANNER & WITCOFF, LTD.
28 State Street, 28th Floor
Boston, MA 02109
(617) 227-7111

Express Mail Receipt No. EL 728372200 US

-1696 TGTTTGCATTAAGTTC

-1680 ATAGATTATAATTTGTAATGGAATCAACACCAAATGCAAATTAGAAAGAGAGCCCACTTTGCTCACCCAGTCACGTCTTC

-1600 CCATGTAACCATAGAACGTTGGGGTCCTGTGTCTTTCTAGATCCACAGTCTTGCTCTCAGAACAGGCTAGCCACACCACA

-1520 GGCCTAGTGCCAGGACCCATGGCCTTTTTTAAGCTCAGACTCCCTTCTGTGAACAGCAATATCCCCACAACTTGTACAA

-1440 CATTGGTGCTTCCTGCAAGGGCTACAGAACTATTTGATACGAAAATGTTCATTGACTTACACACAAGAGAAGCACAAAAT

-1360 AAAAAATTAATAATTAATTTAATGTCTTTGAAAATGTACCATTTATTTTTACATTTGGGGTCATAAGAATTGTATTACAC

-1280 TTAAGAATGCAATACAATTTGAAGATCAGATTTTTCTCCCTTTGTGAGAATTTCTCAGTATGTGTGATGACTACCAAGAA

-1200 ATCATAGCCAGTCATAAATTCAGTGAGTTACTCATAAACGAACAAGAACCACCTACTTCTTGGGGAGGTAGGTCTGCTTC

-1120 CCTTCAACTCAGGATACAACTGCTTTCAACTGCTTTCTTCACATTAGCTGACTAATTAGCTAGAAGCCTGTCGTAAACAA

-1040 TTTTATGGTTGACTCCTTCCCTGGGCTCAGGGTTCCCTAGAACAGAGAGGTCCCCAAATCCCGGTCTGTGGCCTGTCCGC

-960 CTAAGCTCTGCCTCCTGCCAGATCAGCAGGCAGCATTAGATTCTCATAGGAGCTGGACGCCTATTGTGAACTGCGCATGT

-880 GCGGGATCCAGATTGTGCACTCTTTATGAGAATCTAACTAATGCTTGATGATCTATCTGAACCAGAACAATTTCATCCTG

-800 AAACCATCCCCCACCAATCCATAGAAATACTGTCTTCCACAAAAATGATCCCTGGTGCCAAAAATGTTAGAGACCACTCC

-720 CCTAAAACTCTCTTCTTAGCTCTCACCTCCTGTATTACTATCTCATCTCAGTACATTGAAGCCCCCATCTTTTCCCCATG

-640 GATGCCTCATTTCCTATTAGGGAGGCATTTTTTTATTTTTTGTTTTTATTTTTTTCCGAGACGGAGTCTCGCTCTGTCGC

-560 CAAGGCTGGAGTGCAGTGGCGCGATCTCGGCTCACTGCAAGCTCCGCCTCCCGGGTTCACGCCATTCTCCTGCCTCAGCC

-480 TCCCAAGTAGCTGGGACTACAGGCGCCCGCACTACGCCCGGCTAATTTTTTGTATTTTTAGTAGAGACGGGGTTTCACCG

Fig. 1A

```
-400  TGGTAGCCAGGATGGTCTCGATCTCCTGACCTCGTGATCCGCCCGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCGTG
-320  AGACCGCGCCCGGCCGTCATTTGGTATGTCTTAATGTGCCTCAGGACCTAGCACAGTCCCTGGTACCCAGTAGAGACCTA
-240  TGTAATGTTCGTTATTCAATAATAAATACATGAATTAAAGAGTGAGAGTGGATTTTGTAATGTTACGACTGATAGAGAAA
-160  TACTCAGTGATTCTAAGGGATGGGGAAGAACGGTTGGAGCTAGAGGTTGTGCTCAGGAAACTATTAAATAGACGTTCCGC
-80    AGGAAGGGATTGACGAAGTGTGAGGTTAATGAGGAAGGGAAAATAGAATATAAAATTTGGTGGTGGAAAAGATCTGATTC
       ●
1      ATGATGCCGTGTCAGAGAGCAAAGCTCCTGTCCTTTTGGCCTAATTTGGTGATGCTGTTCTTGGGTCTACCACACCTCCT

                                         -24*            -20
                                   ⇓     Met Val Met Gly Leu Gly Val Leu Leu Leu Val Phe
+81    TTTGCCCTCCGCAGGAGCCTGTGTTGGAAGAG ATG GTG ATG GGC CTG GGC GTT TTG TTG TTG GTC TTC

           -10                                    -1  +1
       Val Leu Gly Leu Gly Leu Thr Pro Pro Thr Leu Ala Gln Asp Asn Ser Arg Tyr Thr His
+144   GTG CTG GGT CTG GGT CTG ACC CCA CCG ACC CTG GCT CAG GAT AAC TCC AGG TAC ACA CAC

       10                                         20
       Phe Leu Thr Gln His Tyr Asp Ala Lys Pro Gln Gly Arg Asp Asp Arg Tyr Cys Glu Ser
+204   TTC CTG ACC CAG CAC TAT GAT GCC AAA CCA CAG GGC CGG GAT GAC AGA TAC TGT GAA AGC
```

Fig. 1B

```
            30                                      40
       Ile Met Arg Arg Arg Gly Leu Thr Ser Pro Cys Lys Asp Ile Asn Thr Phe Ile His Gly
+264   ATC ATG AGG AGA CGG GGC CTG ACC TCA CCC TGC AAA GAC ATC AAC ACA TTT ATT CAT GGC

            50                                      60
       Asn Lys Arg Ser Ile Lys Ala Ile Cys Glu Asn Lys Asn Gly Asn Pro His Arg Glu Asn
+324   AAC AAG CGC AGC ATC AAG GCC ATC TGT GAA AAC AAG AAT GGA AAC CCT CAC AGA GAA AAC

            70                                      80
       Leu Arg Ile Ser Lys Ser Ser Phe Gln Val Thr Thr Cys Lys Leu His Gly Gly Ser Pro
+384   CTA AGA ATA AGC AAG TCT TCT TTC CAG GTC ACC ACT TGC AAG CTA CAT GGA GGT TCC CCC

            90                                      100
       Trp Pro Pro Cys Gln Tyr Arg Ala Thr Ala Gly Phe Arg Asn Val Val Val Ala Cys Glu
+444   TGG CCT CCA TGC CAG TAC CGA GCC ACA GCG GGG TTC AGA AAC GTT GTT GTT GCT TGT GAA

            110                                     120         123
       Asn Gly Leu Pro Val His Leu Asp Gln Ser Ile Phe Arg Arg Pro Stop
+504   AAT GGC TTA CCT GTC CAC TTG GAT CAG TCA ATT TTC CGT CGT CCG TAA

+552   CCAGCGGGCCCCTGGTCAAGTGCTGGCTCTGCTGTCCTTGCCTTCCATTTCCCCTCTGCA

+612   CCCAGAACAGTGGTGGCAACATTCATTGCCAAGGGCCCAAAGAAAGAGCTACCTGGACCTTTTGTTTTCTGTTTGACAAC

                                                   ⇓
+692   ATGTTTAATAAATAAAAATGTCTTGATATCAGTAAGAATCAGAGTCTTCTCACTGATTCTGGGCATATTGATCTTTCCCC

+782   CATTTTCTCTACTTGGCTGCTCCCTGAGAGGACTGCATAGGATAGAAATGCCTTTTTCTTTTCTTTTCGTTTTTTTTTTT
```

Fig. 1C

+862 TTTTTTTTTTGAGATGGAGTCTCACTCTGTCGCCCAGGCTTAAGTGCAATGGCACAATCTCGGCTCACTGCAACCTCTCT

+942 CTCCTGGGTTCAAGTGATTCTCCTGCCTCAGCCTCCCAAATAGCTGAGATTACAGGCATGCACCACCACACCTGGCTAAT

+1022 TTTTGTGTTTTTAGTAGAGACAGGGTTTCACCGTTTTGGCCAGGTTGGTCTTGAACTCCTGACCTCGGGAGATCCGCCCA

+1102 CCTTGGCCTCTCTTTGTGCTGGGATTACAGGCATGAGCCACTGAGCCGGGCCACTTTTTCCTTATCAGTCAGTTTTTACA

+1182 AGTCATTAGGGAGGTAGACTTTACCTCTCTGTGAAGGAAAGTATGGTATGTTGATCTACAGAGAGAGATGGAAAAATTCC

+1262 AGGGCTCGTAGCTACTAAGCAGAATTTCCAAGATAGGCAAATTGTTTTTTCTGTCAAATAATAAGCTAATATTACTTCTA

+1342 CAAATATGAGACCTTGGAGAGAAGTTTCCAAGGACCAAGTACCAACATACCAACAGATTATTATAGTTTCTCTCACTCTT

+1422 ACACACACACACACACATATACACATATGTAATCCAGCATGAATACCAAAATTCATTCAGGGTAGCCACCTTTTGTCTTA

+1502 ATCGAGAGATAATTTTGATGTTTGAATGGAATGCTCCCAGGATATTCTCTTGTCATGGTTATTTTATATAAAATTCAAAA

+1582 ACCAATTACATTATTTCCTCTGTAATCTTTTACTTTATCAACTAATGTCTGGCAAGTGTGATGTTTTGGGGAAGTTATAG

+1662 AAGATTCCGGCCAGGCGCTTATCTCACGCTTGTAATCCAGCACTTTGGGAAGCTGAGGCGGACAGATCACGAGGTCAAGA

+1742 GATCAAGACCATCCTGGACAACATGGTGAAACCTTGTCTCTACTAAAAATGTGAAAATTAGCTGGGCGTGGTGGCACACA

+1822 CCTATAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTAGGAGGCGGAGGTTGCACTGAGCCGAGAT

+1902 CACGCCACTGCACTCCAGCCTGGGCGACAGAGCGAGACTCCATCTCAAAAAAAAAAAAAAAGAAAGATCCCAGTTTATC

+1982 CCAGTTTATCCCTTATTCTTCCTCAATTCTCAAGATTTGTTTTTAAGTTAACATAACTTAGGTTAACACACTCTTTGTAA

+2062 AATACACTGTTCAATCTACAGACTCAGTGGTTAGCTTCCTGTTAACTAATTTCTGTTGACAGGTACTTGGATATTTTATT

Fig. 1D

+2142 TAGAAAGTGGTTGCCAATAAATTAGTTATAAGTCGCCAGTTTCACTGCCTTGTGAACACATAATTATTGTGGTCTCAGTA

+2222 TTCCCTATGGTGGCTTCTCCTGCTCCTGGTATTGCCCTGAAATGGGCCAAAAGCCGTGGCTCCCCAATGCTCAGGTTATA

+2302 GAACATTGTCCAGGTACCACCTAGGAGAGCCCAGCCTCACTGAAAGTATTCAAATTTAGGAATGGGTTTGAGAAGTAGGT

+2382 AGCTGGTATGTGCTTAGCACAAGAATCTCTCTTCCTTGGGTTAGTCTGTTTCAAAACTGAAAACACTGTCATTCCTTAAG

+2462 AAAATAGGAAAAAGTATTCCAAACCTCTGTCACTAGAAAATTTGCCATATTACCAAATCTCAAAAACCTCTCAGGAAATG

+2542 AGAAAGTCCCAGTTTCTGGTAAACTATTTGGGCCCTTTTCTCAAGTTCTCCTTCCAGTGCTATTTCCTTGAGGTGAGGCA

+2622 AAGTTACTCAAGATCATCGCTGCCACTCAAGGCCTTGATAGGGCAAGTGAAAGGCATGGACCATTATTATATTGATCACA

+2702 GCATAAGCTGTGAAAACCCACATCTTCTCCAAACATCTGCTTGGAGCATTATCATCGCATAGTTTGCTCTGGTGTTCAGG

+2782 GAAATCGCTGTTTCATAGGAAATCACATGGCAGTGGGATGGGAGTGTTTCCTGACCTGCCGATGGTACTGGCACCTGAGC

+2862 AAGCATTCCTAGTCCTTTTTGGTCTGGGCCTCTTGTTCTATCACAACCACAAGCTGTTTAAAATAAAAACGTCAAGTCAC

+2942 AGGCAGGTCATTTTATCCTGCGTGAATCAATTGAAG

Fig. 1E

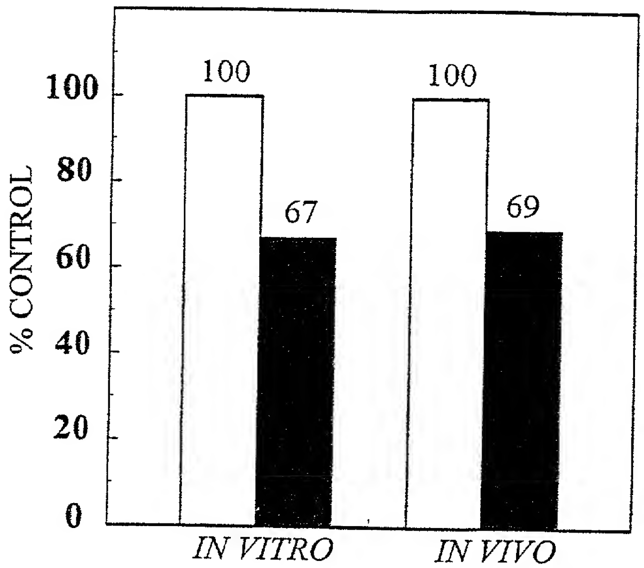

% CONTROL
100
80
60
40
20
0
100
67
100
69
IN VITRO
IN VIVO

Fig. 2A

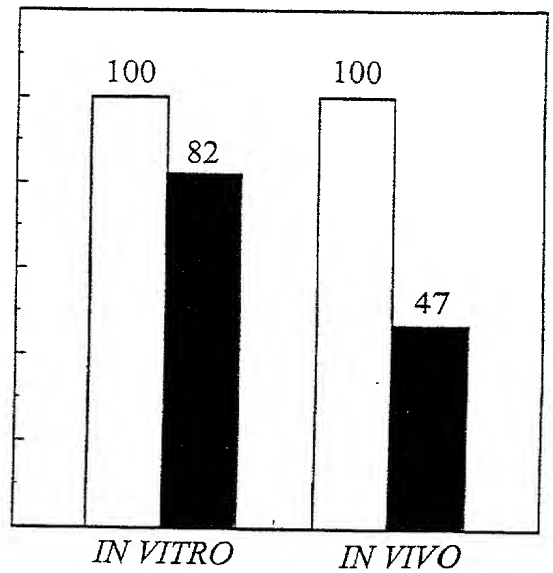

100
82
100
47
IN VITRO
IN VIVO

Fig. 2B

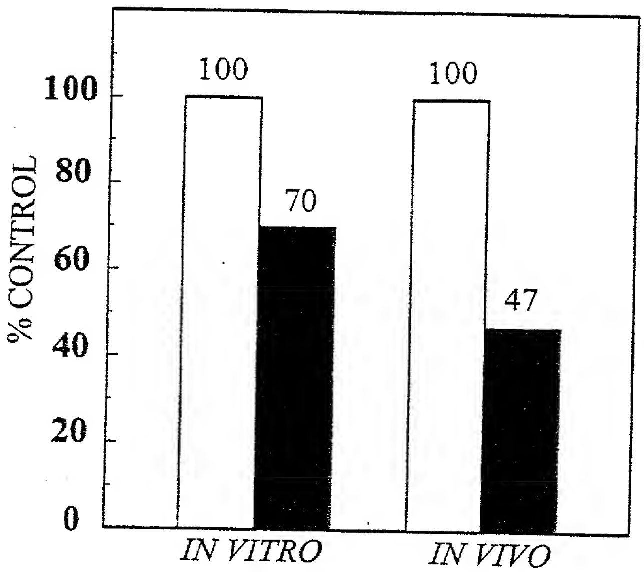

% CONTROL
100
80
60
40
20
0
100
70
100
47
IN VITRO
IN VIVO

Fig. 3A

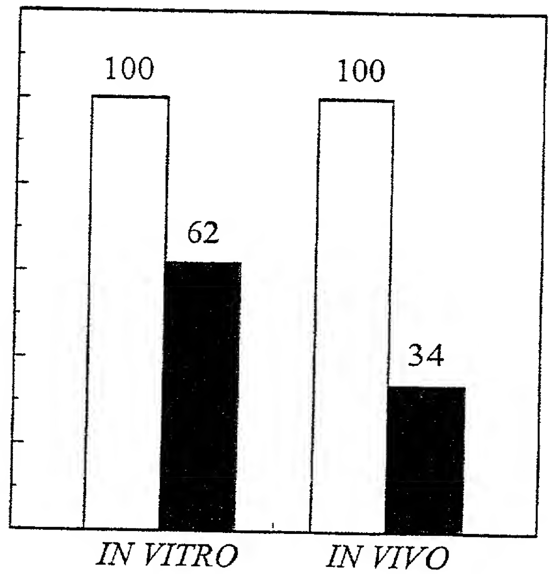

100
62
100
34
IN VITRO
IN VIVO

Fig. 3B

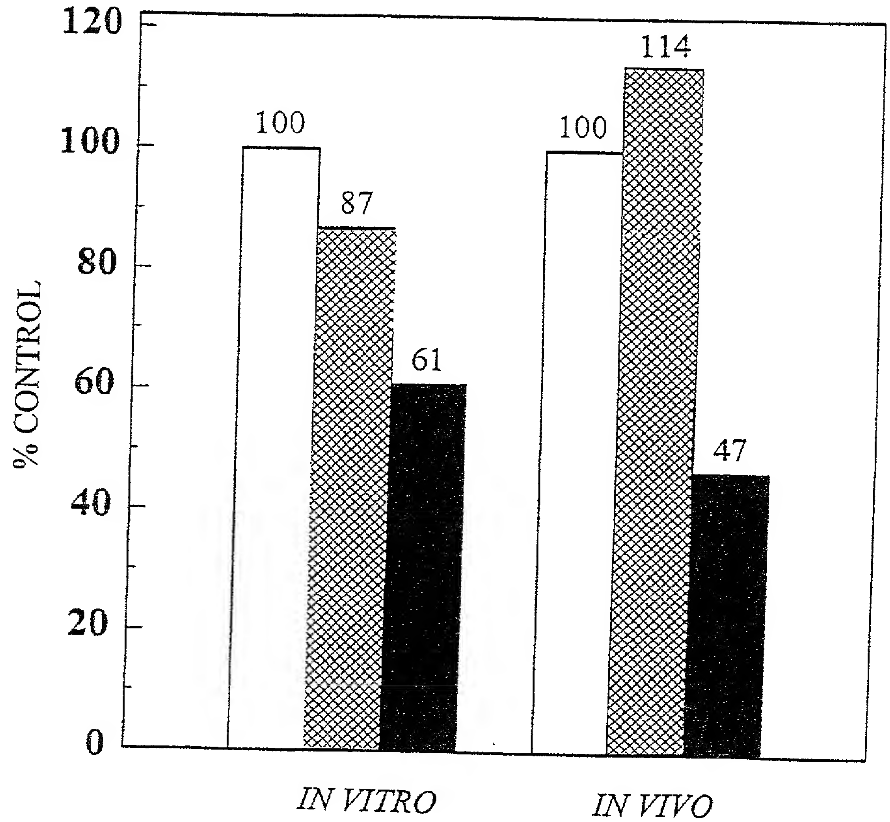

120
100
80
60
40
20
0
% CONTROL
100
87
61
100
114
47
IN VITRO
IN VIVO

Fig. 4

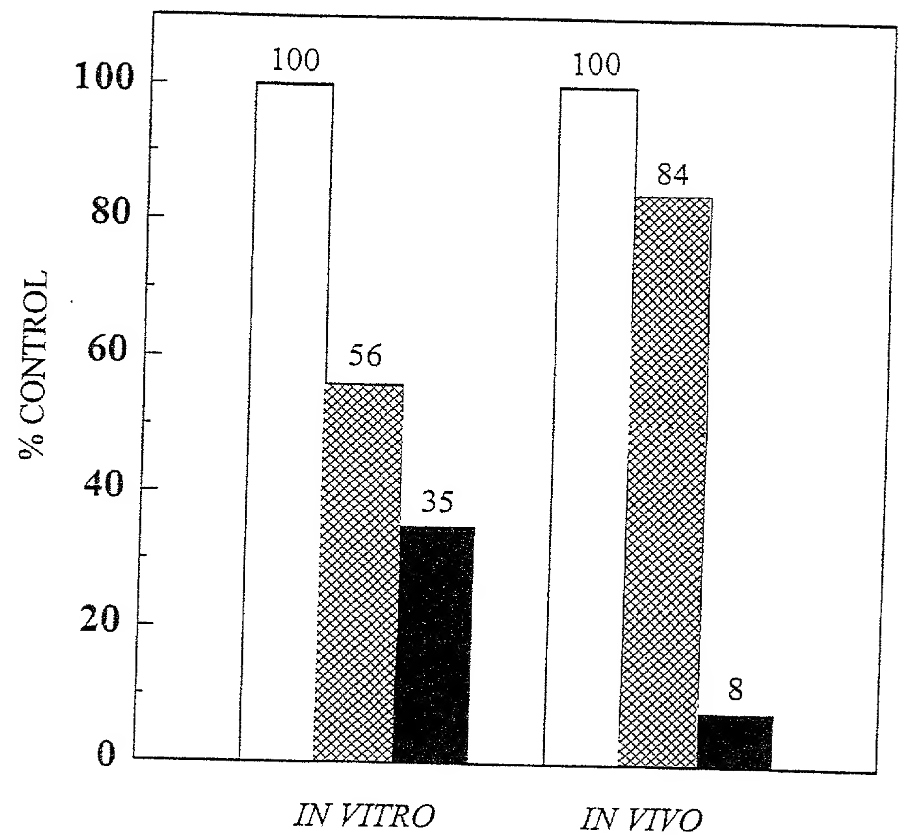


Fig. 5

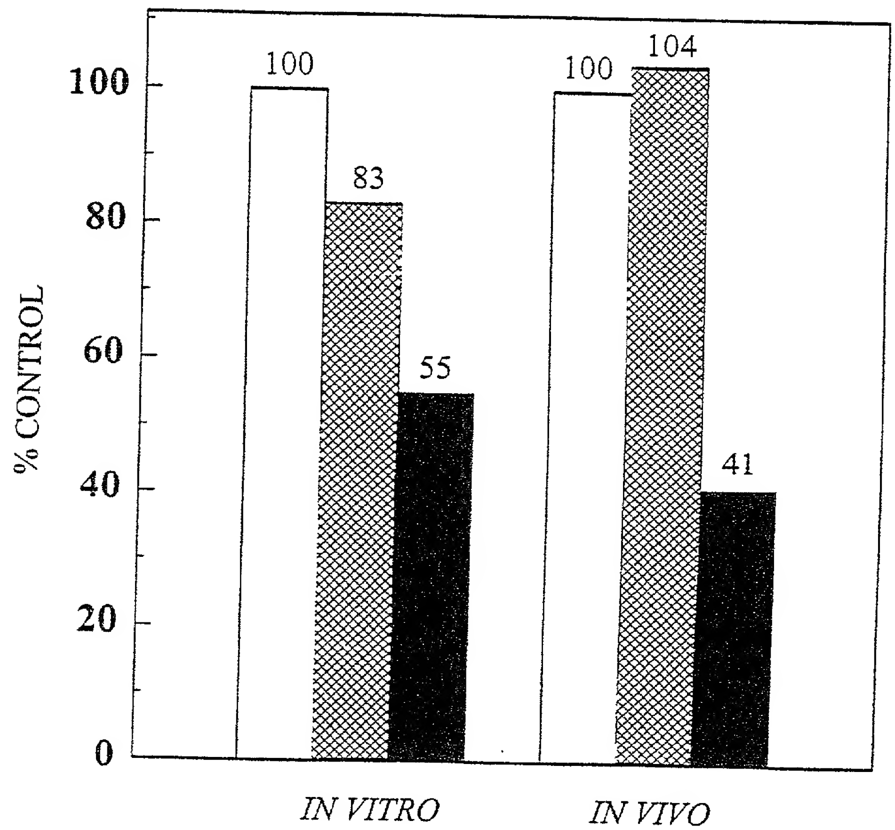
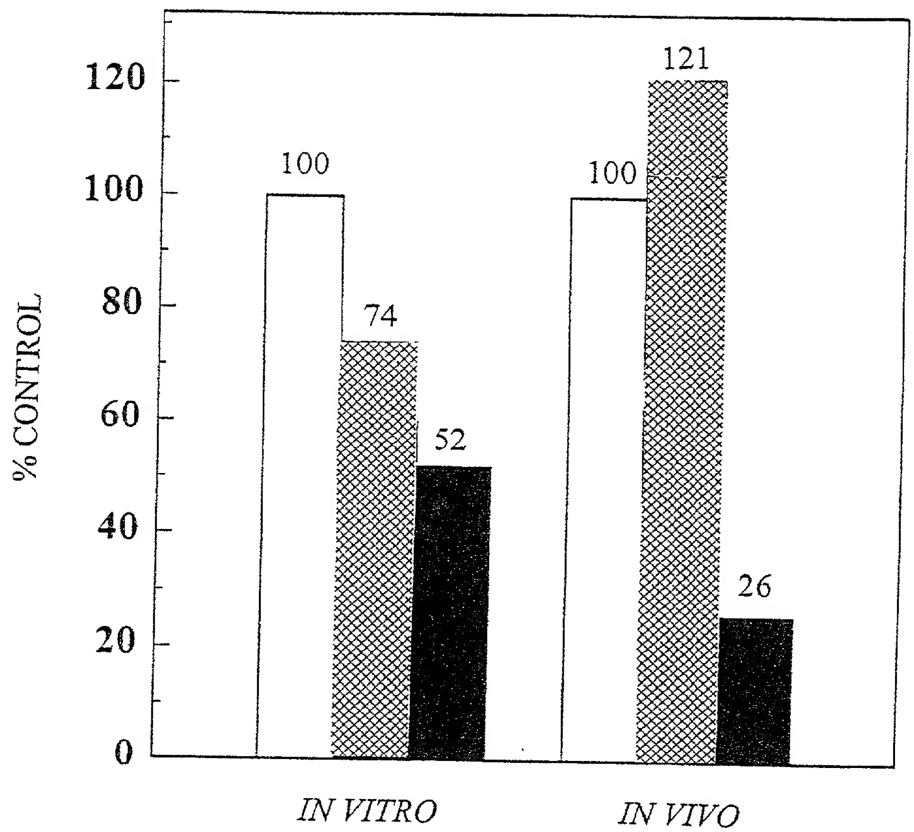


Fig. 6



120
100
80
60
40
20
0
% CONTROL
100
74
52
100
121
26
IN VITRO
IN VIVO

Fig. 7

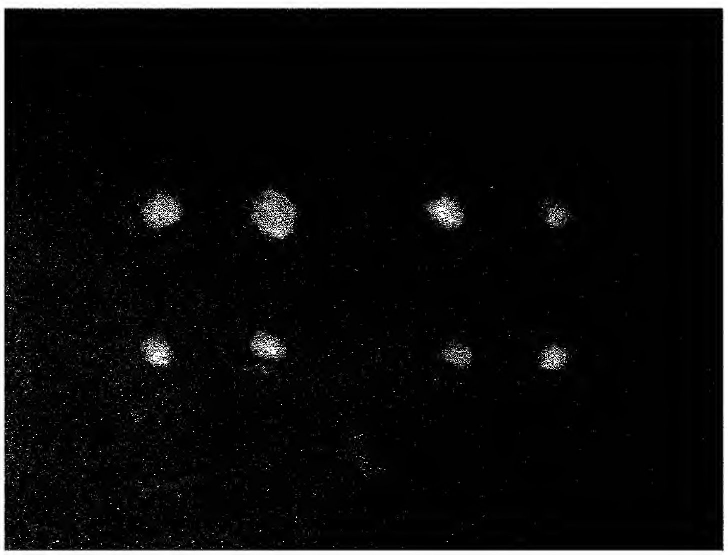


FIG. 8

FIG. 9

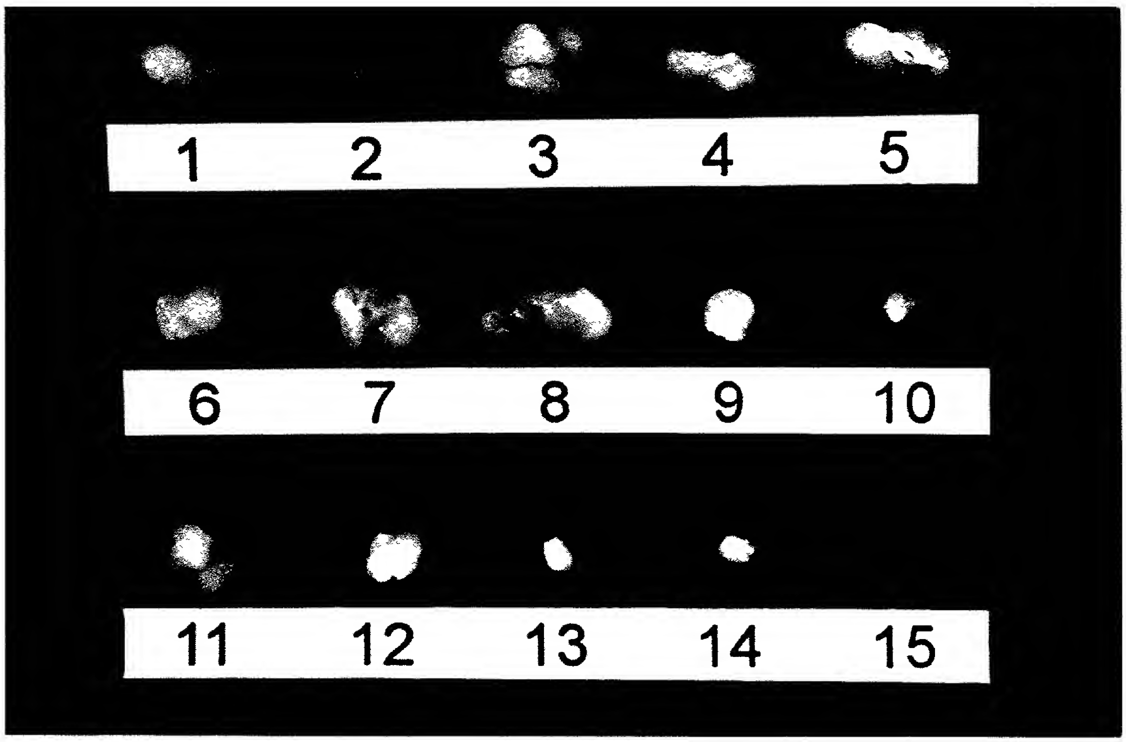


FIG. 10

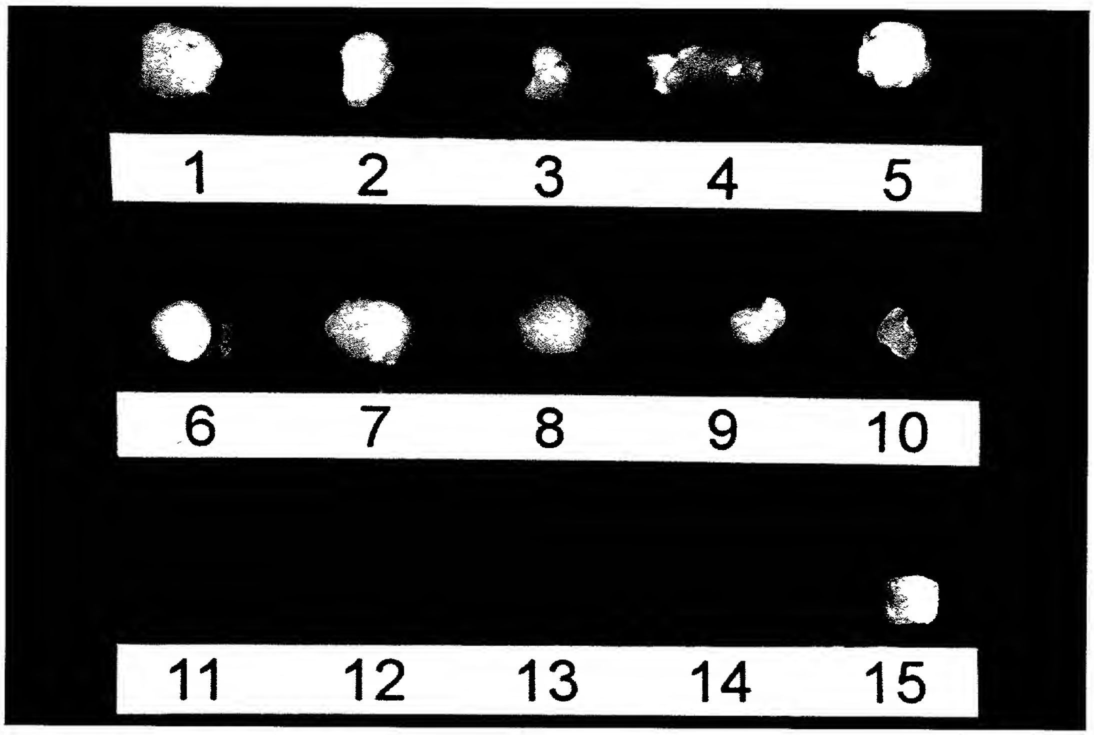


FIG. 11

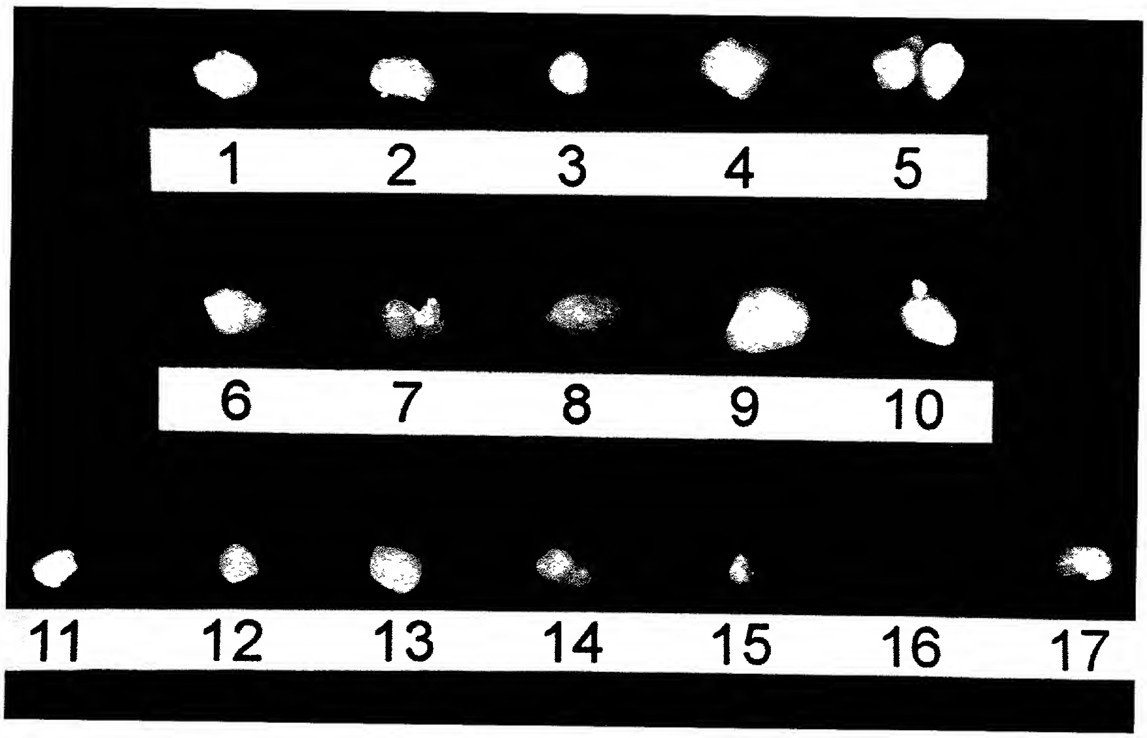


FIG. 12

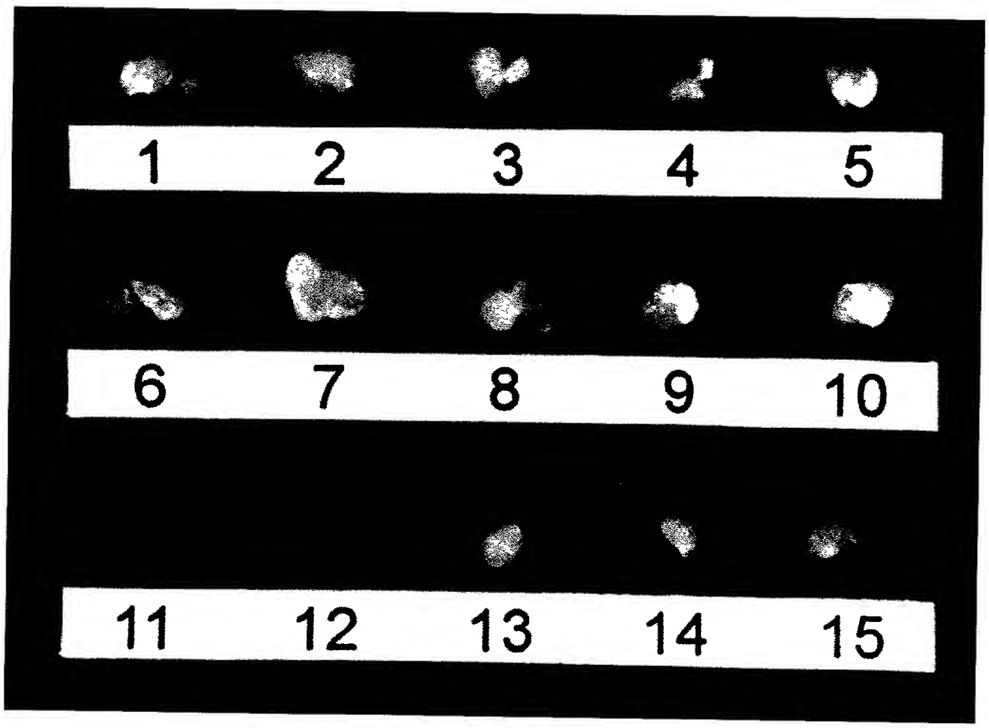


FIG. 13

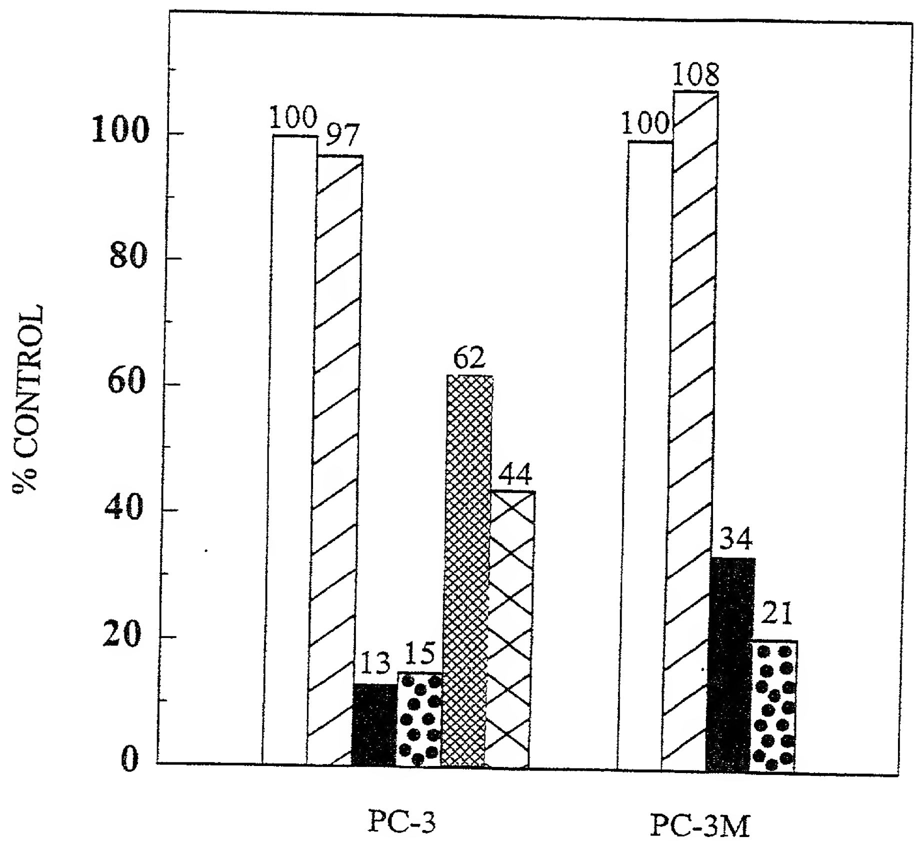


Fig. 14

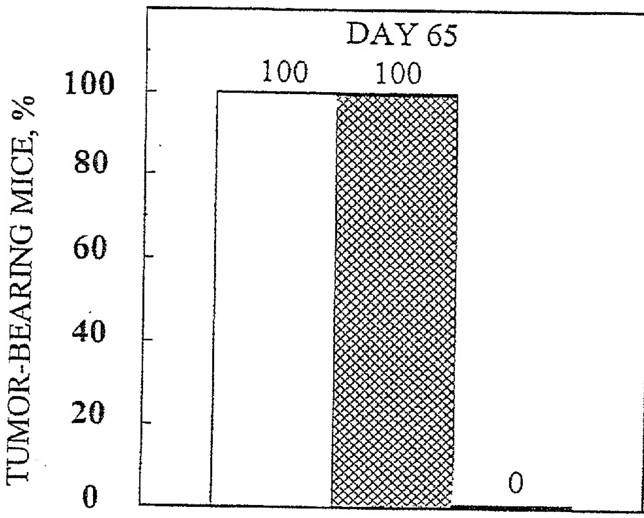


Fig. 15A

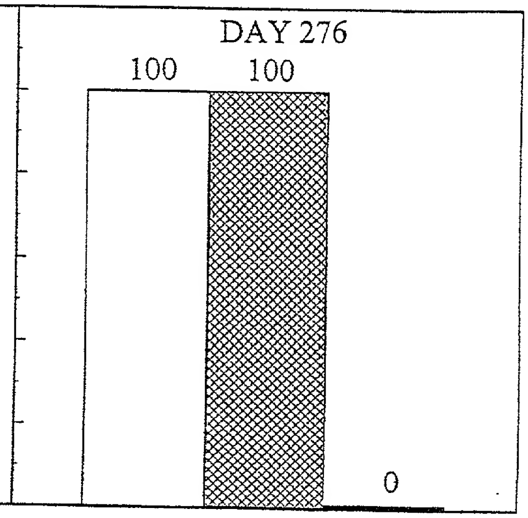


Fig. 15B

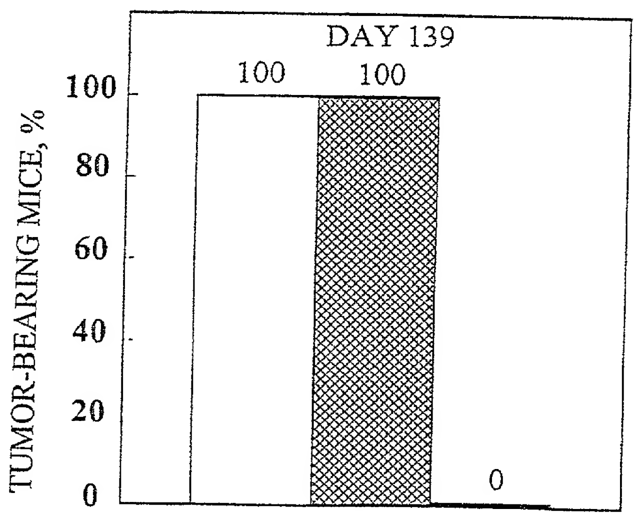


Fig. 15C

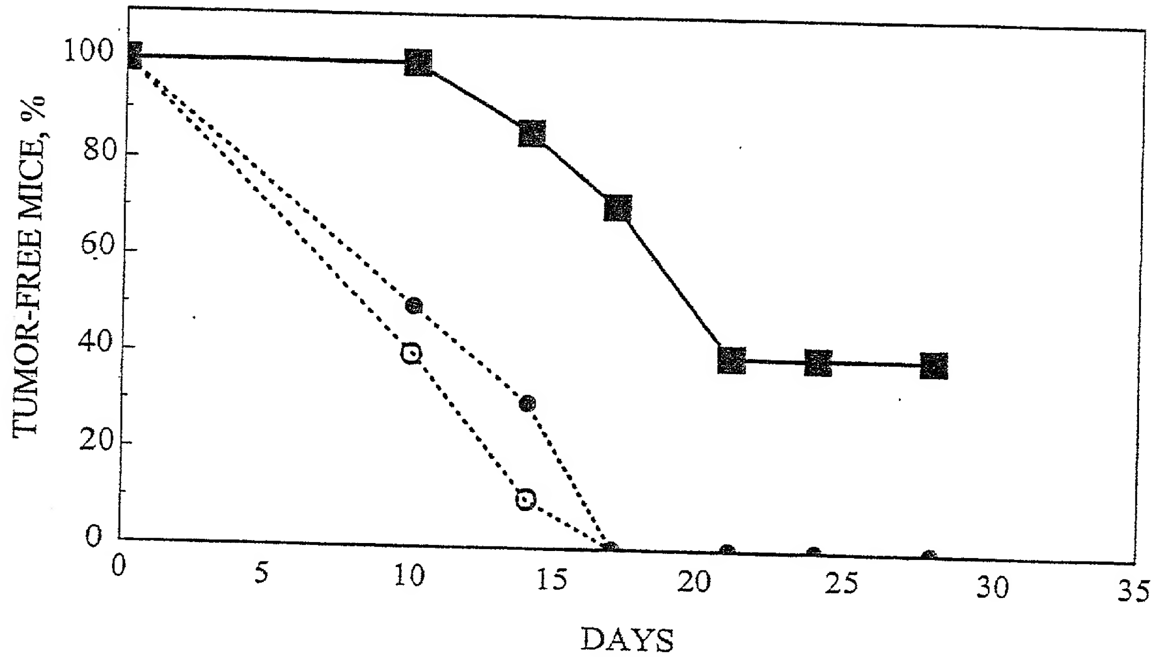


Fig. 16

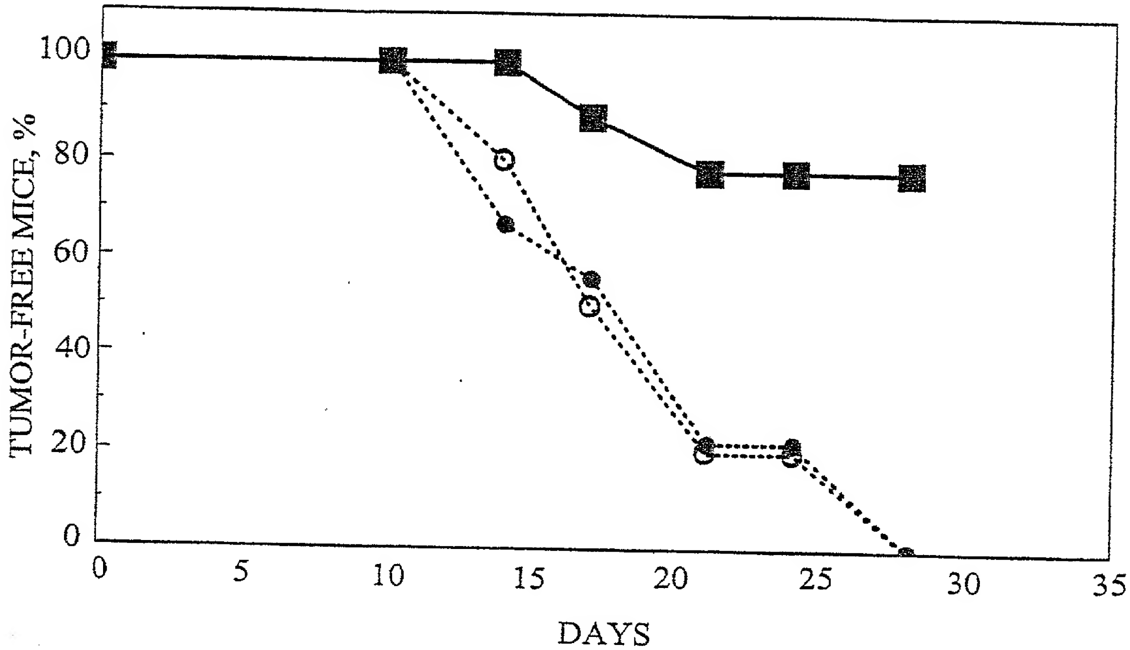


Fig. 17